



Common Core State Standards Leadership Summit

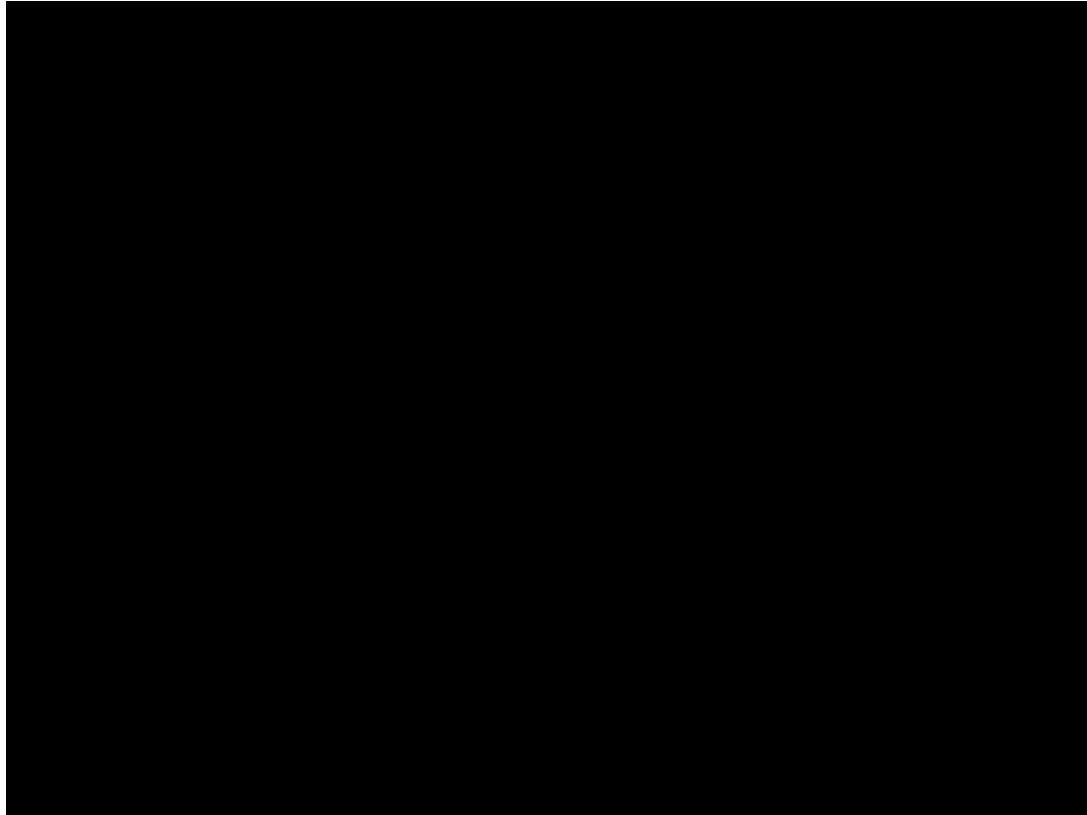
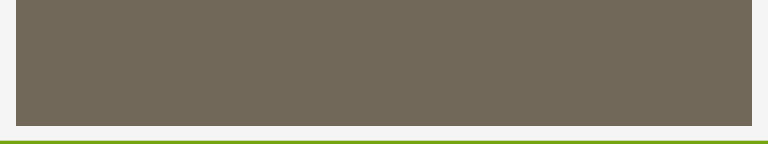
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“Gearing Up” for the Common Core State Standards

oMathematics

Recognizing Excellence

- How do you recognize excellence?



How do you recognize excellence?

- You don't.
- You reveal it.

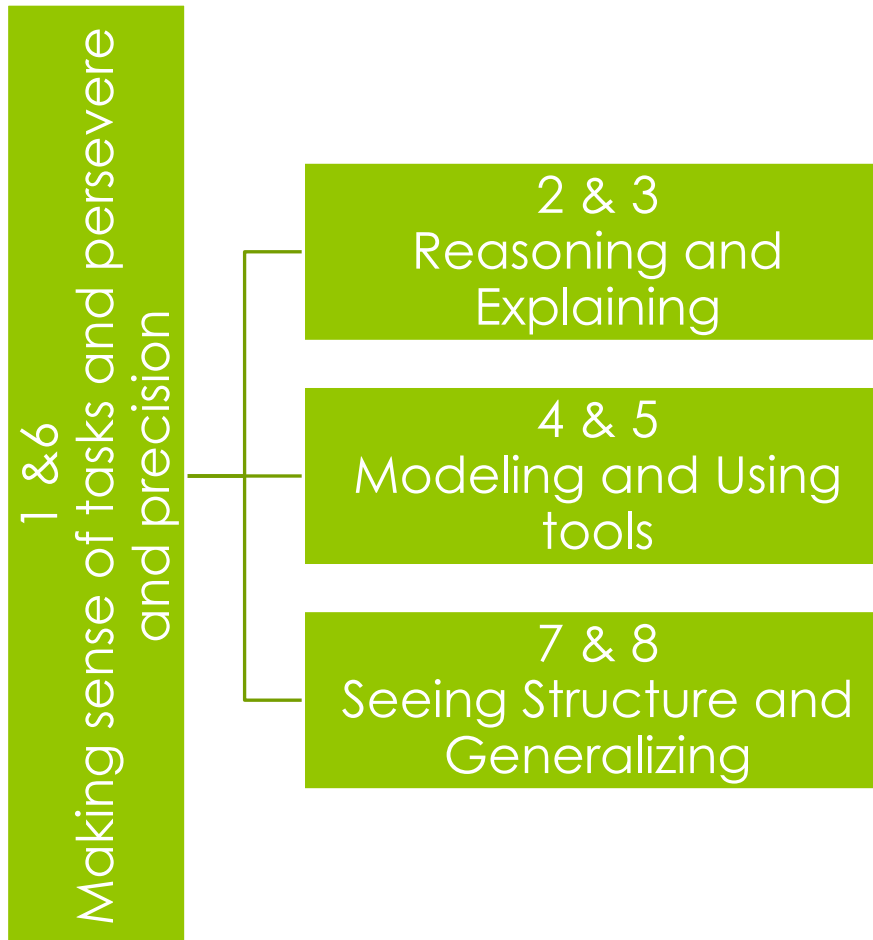
Learning Progressions in the Common Core

Common Core State Standards – Mathematics

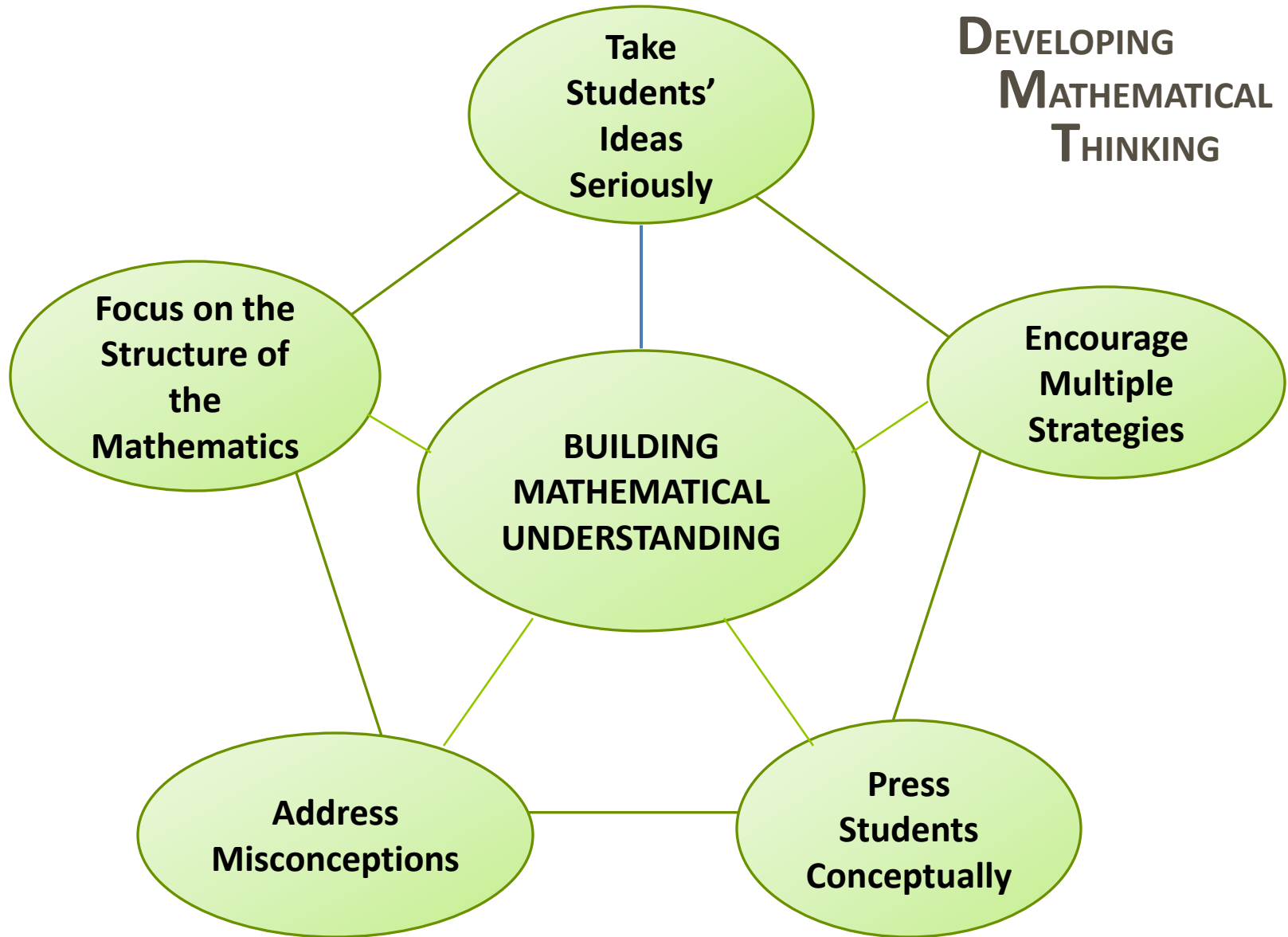
Learning Progressions

Kindergarten	1	2	3	4	5	6	7	8	HS						
Counting and Cardinality									Number and Quantity						
Number and Operations in Base Ten										Ratios and Proportional Relationships					
										Number and Operations - Fractions		The Number System			
Operations and Algebraic Thinking						Expressions and Equations		Algebra							
								Functions	Functions						
Geometry						Geometry			Geometry						
Measurement and Data						Statistics and Probability			Statistics and Probability						

8 Standards for Mathematical Practice



DEVELOPING MATHEMATICAL THINKING



The Standards

- Mathematics I Kindergarten
- Mathematics I Grade 1
- Mathematics I Grade 2
- Mathematics I Grade 3
- Etc.

“Unitizing”

Grade 1

Domain: Number and Operations in base Ten

Cluster: Understand Place Value

2. Understand that the two digits of a two-digit number represent amounts of tens and ones. ...

This approach takes advantage of what the researchers call “unitizing” (Glaserfeld 1995; Steffe & Cobb 1988) by bundling ten ones into a ten to enable counting the tens and later adding and subtracting tens (as units).

Explanations and Examples

Kindergarten

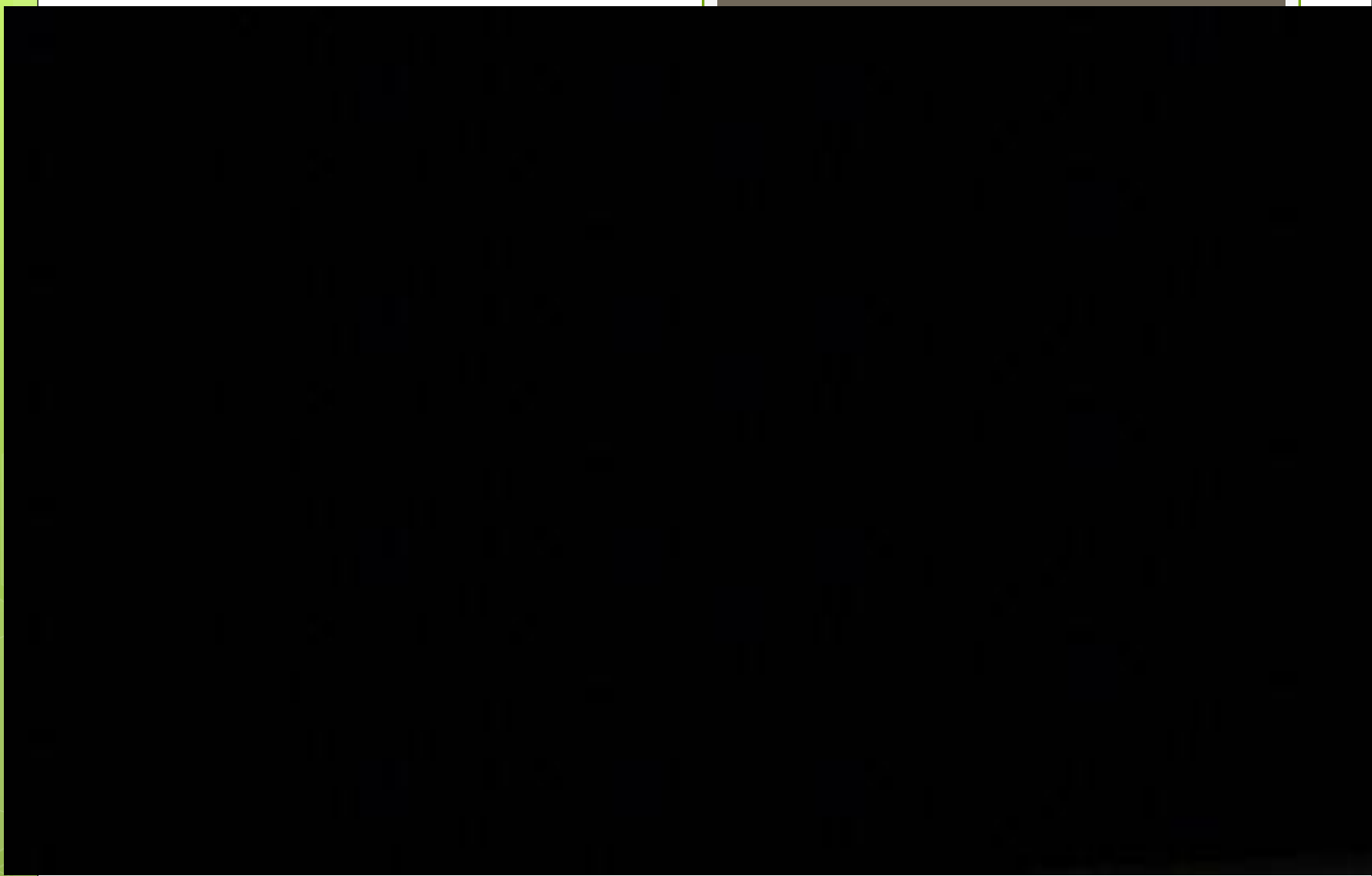
Counting and Cardinality

Count to tell the number of objects

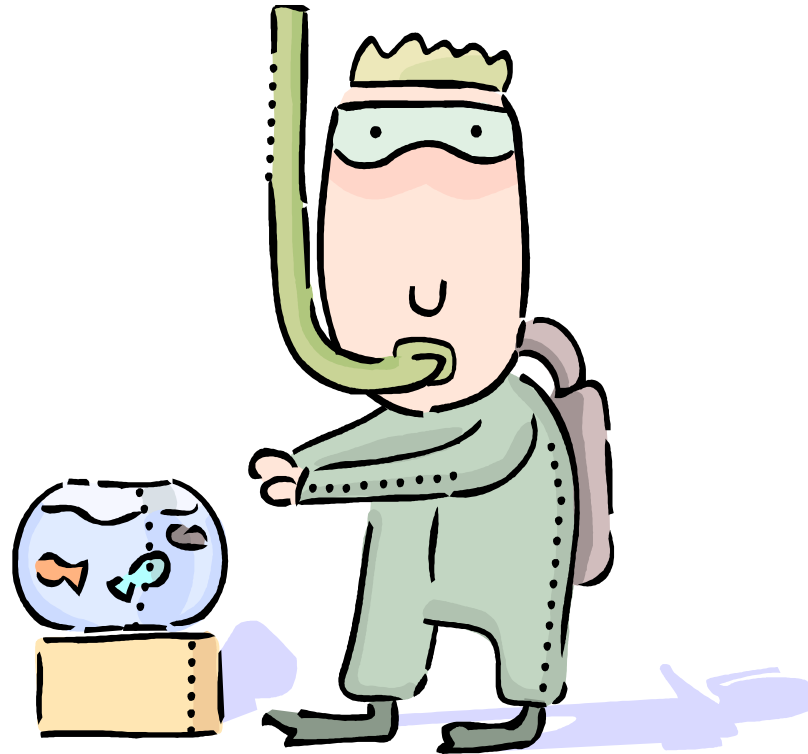
Standards	Mathematical Practices	Explanations and Examples
Students are expected to:		
K.CC.4		



Standards for Mathematical Practice by grade level



What will be your “water tank”
problem?



Professional Development

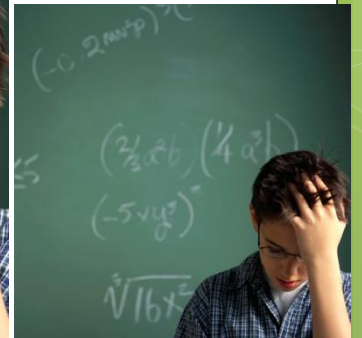
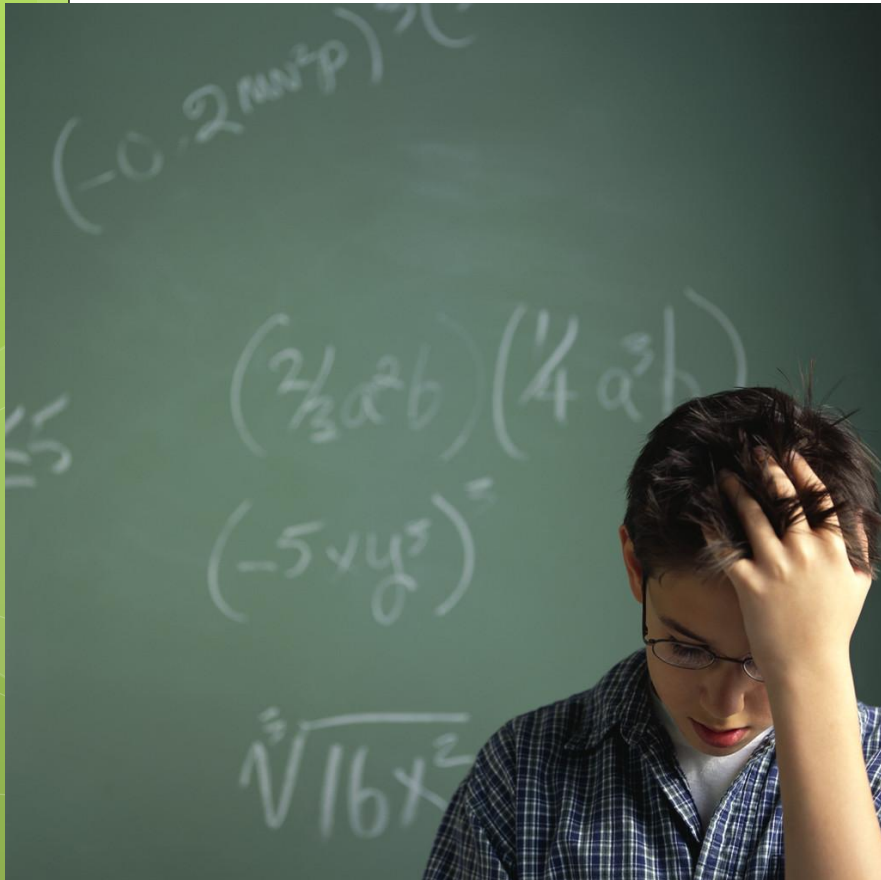
- Five initial domains for professional development in grades K-8

K-8 Professional Development

Five Domains

- **K-2 Counting & Cardinality and Number & Operation in Base 10**
- **K-5 Operations and Algebraic Thinking**
- **3-5 Number and Operations – Fractions**
- **6-7 Ratios and Proportional Reasoning**
- **8 Geometry**

Getting Started

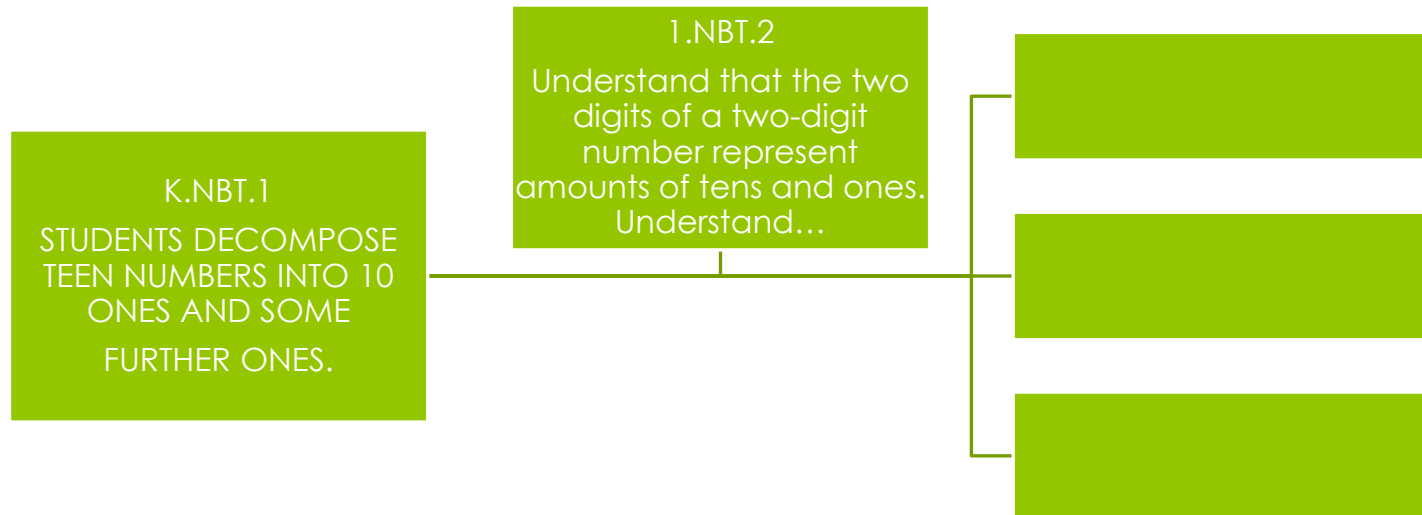


example

Target:

Starting Points:

Connections with other standards:



A fortunate irony...teaching
less can result in learning more



Sample Tasks

- Where do these fall in the standards?
- Match tasks to standards.



when you change the way
you look at things





Things change

Ideas & Actions

Schools

Districts

Institutions

Colleagues

Resources (sample)

- ◉ Illustrative Mathematics Project
- ◉ Commoncoretools
- ◉ Khan Academy
- ◉ Inside Mathematics
- ◉ NCTM
- ◉ CCSSO
- ◉ SDE (website under construction)

Their future is in our hands...



And our future is in theirs...

